

CONTROL SYSTEM WITH MULTIPRO- CESSOR ARCHITECTURE FOR AN IN- TERNAL COMBUSTION POWERTRAIN

Abstract

A control system with multiprocessor architecture for an internal combustion powertrain is disclosed. The control system has a computing unit capable of executing both basic control functions of the powertrain and ancillary control functions not directly related to the control of the powertrain. The computing unit comprises a main processor, which is dedicated to executing basic functions for controlling the powertrain, at least one auxiliary processor, which is dedicated to executing ancillary control functions, a number of memories, a series of peripheral devices, at least one peripheral bus connection, to which the peripheral devices are connected, and an intelligent main bus connection of the cross-bar bus type to allow the processors to communicate with the memories and with the peripheral bus connection.